solved only by sustained attention to all its many aspects.

This larger vision, the ability to set the pace on a high plane, the capacity for work, the power of constructive leadership—these are the qualities which lead those who know Professor Smith and his achievements to rejoice that he is now to center his activities in a field so full of promise as is animal pathology to-day; and this with the opportunities which the Rockefeller Institute affords those who share its aims, to carry forward their chosen work unhurried and unhindered.

T. M. P.

SCIENTIFIC NOTES AND NEWS

Dr. S. J. Metzer, head of the department of physiology and pharmacology of the Rockefeller Institute for Medical Research, has been elected president of the Association of American Physicians in succession to Dr. Simon Flexner.

At its annual meeting, held on May 13, the American Academy of Arts and Sciences voted to award the Rumford Premium to William David Coolidge for his invention of ductile tungsten and its application in the production of radiation.

The Franklin Institute, Philadelphia, on May 20, presented its Elliott Cresson medals to Dr. Edgar Fahs Smith and Dr. Orville Wright. Addresses were made on "Scientists from the Keystone State," by Dr. Edgar Fahs Smith and on "Stability of Aeroplanes," by Dr. Orville Wright.

Honorary degrees are to be conferred by the University of Glasgow on Dr. Archibald Barr, late regius professor of civil engineering and mechanics in the university; Colonel Sir William B. Leishman, F.R.S., professor of pathology in the Royal Army Medical College, and Sir Ernest H. Shackleton.

On May 4, a company of men and women, forest lovers, gathered in Harrisburg, at an informal luncheon, to present a testimonial to Dr. J. T. Rothrock on his retirement from the Pennsylvania Forestry Commission. There were sixty-five present, among whom were Governor J. K. Tener; Mr. John Birkinbine, president of the Pennsylvania Forestry Association; Mr. A. B. Farquhar, president of the Pennsylvania Conservation Association; Mr. J. Horace McFarland, president of the American Civic Association; President H. S. Drinker, of Lehigh University, president of the American Forestry Association; Mr. C. F. Quincy, chairman of the executive committee of the American Forestry Association; Professor J. A. Ferguson, director of the forestry department, Pennsylvania State College; Hon. R. S. Conklin, commissioner of forestry, Pennsylvania, and Dr. S. R. Dixon, state health commissioner of Pennsylvania. The governor presented in behalf of two hundred and fifty donors, a beautiful loving cup, and Mr. Farquhar, Dr. Drinker and Mr. Conklin spoke of Dr. Rothrock's work and personality. Dr. Rothrock spoke feelingly in reply.

At the annual meeting of the Boston Society of Natural History the following officers were elected for the ensuing year: *President,* Charles Sedgwick Minot; *Vice-Presidents,* Robert T. Jackson, Nathaniel T. Kidder, William A. Jeffries; *Secretary,* Glover M. Allen; *Treasurer,* Edward T. Bouvé; *Councillor for two years,* Alfred C. Lane; *Councillor for three years,* Thomas Barbour, Henry B. Bigelow, Miss Cora H. Clarke, William G. Farlow, George H. Parker, John E. Thayer, Charles W. Townsend, William F. Whitney. Reports were made on the work and progress of the year and an illustrated paper was presented by Dr. Hubert Lyman Clark on his experiences as a member of the Carnegie Institution's expedition to Torres Strait and the Great Barrier Reef of Australia. The two annual Walker Prizes, awarded for the best memoirs submitted on subjects in natural history, were voted as follows: a first prize of $60 to Miss Marjorie O'Connell, A.M., of the department of geology, Columbia University, for her essay on "The Habitat of the Eurypterida"; and a second prize of $50 to William J. Crozier, of Cambridge, for his essay on "The sensory reactions of *Holothuria surinamensis.*"

DR. ZENTARO KAWASE, professor of forestry in the University of Tokio, Japan, is in America to make observations in original forest areas, especially those in the southern Appalachian Mountains.

DR. E. L. EKMAN, assistant in the botanical department of the National Museum at Stockholm, recently visited the New York Botanical Garden for nearly two weeks on his way on an exploration for two years to Santo Domingo and the state of Pernambuco, Brazil.

MR. A. N. HALL has been appointed government curator of the ancient monuments of Rhodesia. His headquarters will be at Great Zimbabwe, but he hopes to spend four months of each year in examining or searching for other remains.

DR. A. G. WEBSTER, professor of physics, Clark University, gave on May 8 a lecture on "Sound and Its Measurements," before the Columbia chapter of Sigma Xi.

ON April 23 and 24, Dr. Oscar Riddle, of the Carnegie Institution, lectured before the Sigma Xi Societies of Indiana University and Ohio State University on "The Determination of Sex and Its Experimental Control."

HIRAM PERCY MAXIM lectured on "The Annihilation of Noise" and demonstrated the Maxim silencers before the Middletown Scientific Association at Wesleyan University on May 12.

PROFESSOR CHARLES H. HASKINS, dean of the graduate school of Harvard University, delivered the annual address before the Zeta chapter of Phi Beta Kappa and the student body of Oberlin College, on May 8, on the subject "The Medieval Scholar."

THE retiring president of the Geographic Society of Chicago, Professor Henry C. Cowles, gave on May 8 before the society an illustrated account of his observations and experiences in guiding a party of distinguished plant geographers through the western United States in the summer of 1913.

THE Halley lecture for 1914 will be delivered at the University of Oxford by Colonel C. F. Close, director of the Ordnance Survey, on May 20. Subject, "The Geodesy of the United Kingdom."

THE celebration of the seven hundredth anniversary of the birth of Roger Bacon will be celebrated at the University of Oxford on June 10.

MR. ROBERT KAYE GRAY, an electrical engineer, active in the promotion of scientific research in England, died on April 28, at Brighton, at the age of sixty-two years.

M. PAUL LOUIS TOUSSAINT HEROULT, known for his work with aluminum and the electric furnace, died on May 10, aged forty-one years.

THE Liverpool School of Tropical Medicine plans to establish a permanent laboratory in Sierra Leone for the purpose of carrying on research work.

THE old chateau at Les Eyzies (Dordogne) has been purchased by the French government and will be converted into a museum of prehistoric archeology.

Nature calls attention to an arrangement now established at the Royal Botanic Gardens, Kew, whereby a competent guide accompanies visitors on week days through the gardens and explains the objects of botanical interest. A small charge is made for the services of the guide, 6d. for each person attending a morning tour, and 3d. for each person attending an afternoon tour. The present arrangements are of the nature of an experiment, and their continuance beyond September next will depend on the extent of the public demand for the services of the guide.

WE learn from the *Journal* of the Society of Arts that preliminary steps have been taken for the establishment of an institute of oceanography for the study and exhibition of marine life and products at Ste. Adresse, a suburb of Havre, overlooking the Bay of the Seine. Plans for a handsome building, about 275 feet long and 40 feet wide, have been drawn up by a well-known Paris architect. It will be constructed in a park of 323,000 square feet. It is estimated that the building and equipment will cost about $150,000. It is hoped to have the building completed and opened in time

for the meetings of the scientific congress to be held in Havre in the autumn of 1914. The most interesting feature of the institute will be an aquarium which will offer instruction and entertainment to the inhabitants of Havre and the vicinity, as well as to the numerous tourists who visit the district.

THE University of Chicago Press has assumed the American agency for the *Internationale Monatsschrift für Anatomie und Physiologie,* published at Leipzig by Geirg Thieme. Professor Robert R. Bensley, of the department of anatomy in the University of Chicago, has been made American editor of the journal. The University Press has also announced the addition of two journals to the list of nine it publishes in America for the Cambridge University Press, England. The journals are *Annals of Applied Biology* and *The Annuals of the Bolus Herbarium,* the former of interest to workers in entomology, plant disease, diseases of animals, and forestry, and the latter dealing with the flora of South Africa. In addition to these twelve journals of research for which the University of Chicago Press is the American agent, it now publishes itself sixteen other journals.

THE department of archeology, Phillips Academy, Andover, Mass., has conducted research work in the state of Maine for a number of years. In June, it is planned to send an expedition of ten or eleven men from the headwaters of the St. John River to its mouth —a distance of over three hundred miles. The expedition will then proceed to the head of Mattawamkeag stream and travel south some fifty miles, and then explore the Upper Grand Lakes, the Lower Grand Lakes and the Ste. Croix basin. A side expedition will move eastward into central New Brunswick. The total distance traveled in canoes will be over six hundred miles. The object of the expedition is, so far as possible, to trace the limits of the so-called Red Paint Culture, and to map prehistoric and historic sites in the regions visited. Excavations will be undertaken where it seems advisable. In case large or important sites are discovered the expedition will work out such in more or less detail, and if necessary, will postpone further reconnaissance until next year. The archeological material discovered, together with observations on historic sites, should enable students to better understand the relationship between the various eastern cultures, and may shed some light on prehistoric migrations. The plans have been approved, and in the absence of the director of the department, Dr. Peabody, in Europe, Curator Moorehead will conduct the expedition. Most of the members of the survey have seen previous service in Maine, and it is hoped that important results will be obtained. Francis B. Manning, of Harvard, will be first assistant; and Ernest Sugden will act as surveyor. The total number of Indian sites mapped by the department in Maine in past years is over two hundred. About 5,300 stone and bone artifacts have been taken from excavations at various points. The department is compiling a bibliography of references to Maine Indians. At present there are over three hundred titles, and the work is not completed.

DR. J. E. WALLACE WALLIN, who since the winter of 1912 has occupied the position of professor of clinical psychology and director of the psychoeducational clinic in the school of education of the University of Pittsburgh, has been appointed to the position of director of the psycho-educational clinic in the St. Louis public schools. The clinic will be organized at the beginning of the next school year. It will be located on the grounds of the Harris Teachers College, with which institution it will be closely affiliated. Lecture courses on abnormal children by the director will be offered in the extension division of the college. Students may matriculate in these courses whether or not they reside in the city of St. Louis. The clinic will be organized as an independent bureau in the educational division of the school and not as a minor division of the department of school hygiene or medical inspection. But it will work in close cooperation with the latter department. The clinic will exercise administrative control under the regulations of the superintendent's office over the examination, classification, education,

placing and transfer of the mentally exceptional children in the public schools. The actual supervision of the work in the special classes will be done by a special supervisor working under the direction of the clinic. St. Louis has already segregated about 500 pupils in special classes, and it is expected that the number will now rapidly be increased to at least 1,000. Each child will be given a psychological, sociological, pedagogical, hereditary and medical examination. It is expected that a staff of assistants commensurate with the growing needs of the clinic will gradually be organized, and that, eventually, the clinic organization will include a bureau of vocational guidance. The clinic aims to serve as an educational, social and vocational clearing house for the community. The St. Louis authorities have carefully studied the situation and believe they have effected the best form of organization, linking the clinic, on the one hand, with the training school for teachers, and, on the other hand, making it an integral part of the educational division, with supervisory control of the special classes.

ALMOST every conceivable use to which land may be put is represented in the permits reported by the forest service for special projects on the national forests. Some of the uses shown range, alphabetically, from apiary through brickyard, cannery, cemetery, church, cranberry marsh, fox ranch, marine railway, rifle range and turpentine still, to wharf and whaling station. There are 15,000 permits in force for such special uses, which are distributed geographically from Alaska to the Mexican line, and east to Florida. This figure does not include any of the 27,000 permits in force for grazing cattle and sheep on the forests; nor the 6,000 transactions for the sale of timber, and the more than 38,000 permits issued last year for the free use of timber by settlers, miners and others in developing their homesteads and claims; nor the nearly 300 permits for water power development. California led all the national forest states in the number of these special use permits, followed by Arizona, Colorado, Montana and New Mexico in the order named. The largest single class of permits was for special pastures or corrals, to be used for lambing grounds, shearing pens, and the like. Next came rights of way for conduits, ditches and flumes, practically all of these being free. Various agricultural permits come third, telephone lines fourth with more than a thousand permits for 6,500 miles of line, and drift fences for the control of grazing animals, fifth. In both of these latter classes, too, practically all of the permits are free. Reservoirs for which more than 600 free permits were issued for the occupation of more than 100,000 acres come sixth. The rest of the uses are not classified though there are a large number of apiaries, camps, summer hotels and schools. The use of the government's lands for schools is given free; for hotels a charge is made. The principle which governs the charge is based, according to the forest service, on whether or not the use of the land is sought by the permittee for a commercial purpose. If it is the intent of the user to make money from a resource which belongs to the whole people, the service holds that he should give a reasonable return for that use. If, on the other hand, farmers want to use government land for their own telephone lines, irrigation works and schools, the government gives them that use without cost.

INTEREST attaches to the study of the fossil floras of the Arctic regions, for they indicate climatic conditions very unlike those now existing there. In place of the present almost perpetually frozen soil which supports but a handful of depauperate plants, the conditions from at least late Paleozoic to middle Cenozoic geologic time made possible at least during certain periods, an abundant and luxuriant vegetation, consisting of ferns and palm-like plants that could grow only in a mild and probably frostless climate. Although these lands are now so inhospitable, and hence but rarely visited, an astonishing amount of information concerning their fossil floras has been accumulated, and to this knowledge Alaska has contributed its full quota, says F. H. Knowlton, a paleontologist of the United States Geological Survey, in a short paper on the "Jurassic Flora of Cape Lisburne," just published as Part D of Professional Paper 85.

The fossil plants described by Mr. Knowlton were collected by A. J. Collier, a geologist of the Survey, while engaged in the study of the coal resources of the Cape Lisburne region. The coal deposits are extensive and are the only mineral resources of the region known to be of commercial importance. A little mining has been done by vessels short of fuel, which occasionally lie off shore and load on a few sacks of coal. This, however, is a rather dangerous practise, as there is no harbor. Cape Lisburne is the bold headland which marks the northwestern extremity of a land mass projecting into the Arctic Ocean from the western coast of Alaska between latitudes 68° and 69°. It lies 160 miles north of the Arctic Circle, about 300 miles directly north of Nome, and is the only point in Alaska north of Bering Strait where hills above 1,000 feet in height approach the sea. The Jurassic section to which the name Corwin formation has been given is said by Collier to consist of shales, sandstones, conglomerates and coal beds. Fossil plants occur in the shale beds wherever they have been examined. This formation reaches the enormous thickness of over 15,000 feet and contains 40 to 50 coal beds which range in thickness from 1 or 2 to over 30 feet, ten of them being 4 feet thick and suitable for mining. The various beds aggregate at least 150 feet of coal. Mr. Knowlton correlates the Jurassic flora of Alaska with that of eastern Siberia and concludes that the land connection between North America and Asia at this early period of the world must have been practically continuous. In reviewing the character and geographic range of Jurassic floras, especially as developed in Arctic and Antarctic regions, he states that the wide areal distribution of Middle and Upper Jurassic floras has long been one of the marvels of plant distribution. The living flora of to-day, of course, affords many individual examples of wide distribution, such as those found throughout the tropics of both hemispheres, and others, chiefly weeds, that have, largely through human agencies, spread widely over temperate lands, but altogether these plants form but an insignificant part of the whole flora, whereas in Jurassic time a large percentage of the whole flora was practically world-wide in its range. Even Cape Lisburne is by no means the northern limit of this nearly tropical vegetation; it has been found, preserved in the rocks, 180 miles northeast of Cape Lisburne.

UNIVERSITY AND EDUCATIONAL NEWS

Mrs. Helen H. Le Fevre has made to New York University a gift of $10,000 in memory of her husband, the late Dean Egbert Le Fevre. The gift is in the form of a trust to be known as the Dr. Egbert Le Fevre Deanship Fund.

The trustees of the University of Chicago have announced the appointment of a committee to decide on the date and character of the celebration of the twenty-fifth anniversary of the founding of the University. The University of Chicago was incorporated on September 10, 1890.

The New York State College of Forestry has announced plans for the establishment of a course in paper and pulp making.

It is stated in *Nature* that the British chancellor of the exchequer in explaining his budget proposals said that the education grant is to be reconstituted on the principle of making a distinction between the richer and the poorer areas, and between the areas that spend much and those that spend little on education. The increased cost of the exchequer of the education grant will be £2,750,000, but this year the grant will be confined to the necessitous school areas. The government is to contribute one half of the cost of the feeding of hungry school children, and also to make grants for physical training, open-air schools, maternity centers and technical, secondary and higher education. Referring to these grants, Mr. Lloyd George said: "The grants for technical, secondary and higher education are to make it more accessible to the masses of the children, and to extend its sphere of influence where children show any aptitude to take advantage of it. We compare very unfavorably with Germany and the United States of America in this respect.